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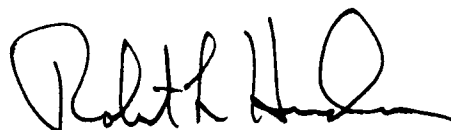
Engineer Manual
No. 1110-2-1616

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Engineering and Design
SAND BYPASSING SYSTEM SELECTION

1. Purpose. This manual provides guidance for the design and evaluation of sand bypassing systems.
2. Applicability. This manual applies to USACE Commands having responsibility for the design of civil works projects.
3. Discussion. Sand deficiencies downdrift of inlets, with or without jetties, can be attributed to varying and complex factors, but generally result from some combination of material storage in or at the inlet in the form of flood- or ebb-tidal shoals, material diversion offshore due to structures, material impoundment against updrift structures, or ocean disposal. When downdrift nourishment is done mechanically using the available littoral drift at an inlet, the process is called sand bypassing. The sand bypassing system designer is responsible for developing a suitable solution that is economical and achieves the project's purpose. The potential success of the system in meeting the actual bypassing requirements of the site will depend upon the quality of the coastal processes study. The importance of the coastal processes study cannot be emphasized enough. It is the foundation upon which the bypassing system is designed. The ultimate success of the bypassing system depends on how other factors, primarily social/environmental restrictions, influence the selection of the lowest cost, technically feasible solution. Also, the definition of success will vary between those with the problem and the designer of the solution. Sand bypassing may not be an economically justifiable solution for all sites.

FOR THE COMMANDER:



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